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EXAMINER

BOTTORFF, CHRISTOPHER

ART UNIT	PAPER NUMBER
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3618

DATE MAILED: 02/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/766,835	Applicant(s) DE OLIVEIRA, JOAQUIM MATIAS	
	Examiner Christopher Bottorff	Art Unit 3618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The amendment filed December 28, 2005 has been entered. Claims 1-9 are pending.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the other two ends" in line 9. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 4, and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Middler US 2,505,057 in view of Kobluk US 5,397,145.

Middler discloses a front wheel drive mechanism for a vehicle. The mechanism permits simultaneous displacement movement forwards and backwards and angular

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turning toward the right and the left. See Figures 1-3. The mechanism comprises a pair of supports 4 attached to the vehicle, a drive bar 6 positioned between the supports 4, and a sub-assembly 23, 24, 25, 26 mounted at each end of the drive bar. See Figures 1 and 4.

Each respective sub-assembly includes a universal joint having a fitting 23 mounted on the end of the drive bar and a link 25 joining fitting 23 to a fitting 24, 26 attached to a wheel 10, 11 of the vehicle. See Figure 4 and column 3, lines 12-36. A respective rotational element 12, 14, 15 is fastened to the end of each fitting of the wheel at element 26 of the fitting, and the ends of a steering bar 16 are respectively fitted into the corresponding rotational element. See column 2, lines 34-42. Each rotational element has an L-shape. See the cross sectional shape of element 12 in Figure 4, including the horizontal configuration of element 14 and the generally vertical element extending from element 14 toward the wheel's axis of rotation. Also, compare the horizontal projection of element 15 in Figure 1 relative to the generally vertical element in Figure 4.

The steering bar 16 has a part at opening 18 in the center designed to accommodate a steering axle 19, one end of which is bent into an L shape and the other end of which is connected to a steering wheel 19a of the vehicle. See Figure 1. Since opening 18 must accommodate the circular perimeter of the steering axle 19, the center part of the steering bar 16 surrounding opening 18 includes a U-shape. The drive bar 6, sub assemblies 23, 24, 25, 26, rotational elements 12, 14, 15, steering bar 16, and steering axle 19 are attached to the vehicle by means of the supports 4 and

with the wheels being attached at the ends of the drive bar 6 through the sub assemblies.

The drive bar 6 is a crankshaft bar with pedals 9 and hub caps 52 are attached to the wheels. See Figures 1 and 4 and column 3, lines 36-37. The supports 4 have holes at their lower ends to accommodate passage of the drive bar 6 and are separate pieces riveted or otherwise secured to the vehicle, which riveting renders the supports integral with the vehicle by attachment elements. See Figure 4 and column 2, lines 15-20. Also, the vehicle is a toy vehicle.

Middler does not disclose the clasp and cross link type universal joint structure defined in claim 1.

However, Kobluk teaches the desirability of providing a universal joint with a first clasp 53, an opposing second clasp 55, and a cross link 45, 47 having two legs 47 fitted into respective openings in the first clasp 53 and another two ends 47 that are fitted into respective openings in the second clasp 55. See Figures 7, 4a, 4b; column 4, lines 40-45; and column 3, lines 7-16. From the teachings of Kobluk, providing the universal joint of Middler with a first clasp mounted on the end of the drive bar, an opposing second clasp attached to a wheel of the vehicle, and a cross link having two legs fitted into respective openings in the first clasp and another two ends that are fitted into respective openings in the second clasp would have been obvious to one of ordinary skill in the art at the time the invention was made. This would provide a sturdy universal joint structure that effectively transmits torque between the drive bar and wheels.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Middler US 2,505,057 in view of Kobluk US 5,397,145 as applied to claim 1 above, and further in view of Howell et al. US 6,105,982.

Middler does not disclose that the drive bar is smooth with a gear to operate the vehicle by an electric motor drive system. However, Howell et al. teach the desirability of providing a vehicle front wheel drive mechanism with an electric motor drive system 130, 132 that drives a smooth drive bar by a gear 134. See Figure 4. From the teachings of Howell et al., providing the front wheel drive mechanism of Middler with an electric motor drive system that drives a smooth drive bar by a gear, rather than the crankshaft bar with pedals, would have been obvious to one of ordinary skill in the art at the time the invention was made. This would reduce the work required by the rider in moving the vehicle and would increase the riders endurance for riding.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Middler US 2,505,057 in view of Kobluk US 5,397,145 as applied to claim 1 above, and further in view of Yale US 5,271,638.

Figures 1-3 of Middler each depict fasteners that secure supports 4 to the vehicle. Column 2, lines 15-20, of Middler suggest that these fasteners are rivets or another type of suitable fastener. However, Middler does not specifically state that screws are another type of suitable fastener for securing support brackets to a vehicle.

Yale teaches the desirability of securing brackets to a vehicle with screw type fasteners. See column 8, lines 29-32. From the teachings of Yale, securing the

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supports of Middler to the vehicle with screw attachment elements would have been obvious to one of ordinary skill in the art at the time the invention was made. Screw attachment means would effectively secure the supports to the vehicle and serve as another type of suitable fastener to rivets.

Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobluk US 5,397,145 in view of Middler US 2,505,057.

Kobluk discloses a front wheel drive mechanism for a vehicle. See Figures 5-8. The mechanism permits simultaneous displacement movement forwards and backwards and angular turning toward the right and the left. See Figures 5 and 6. The mechanism comprises a pair of supports 156, 158 attached to the vehicle, a drive bar 144 positioned between the supports, and a sub-assembly mounted at each end of the drive bar 144. See Figure 7.

Each respective sub-assembly includes a universal joint 160, 160a having a first clasp, which is mounted on the end of the drive bar 144, and a second clasp, which is formed opposite the first clasp and includes corresponding axle 162 or 164 through which the clasp is attached to a wheel 138 of the vehicle. See Figures 7, 4a, and 4b; column 4, lines 40-45; and column 3, lines 8-16. A cross link joins the clasps by fitting two legs in openings in the first clasp mounted to the end of the drive bar 144 and fitting another two legs in openings in the second clasp attached to the wheel 138 of the vehicle. See Figures 7, 4a, and 4b; column 4, lines 40-45; and column 3, lines 8-16.

A respective L-shaped rotational element 168 or 168a is fastened to the end of each clasp of the wheel at axle 162 or 164 of the clasp. See Figure 7. The ends of a steering bar 132, 134 are respectively fitted into a corresponding rotational element 168 or 168a. See Figure 7.

The steering bar 134 has a part in the center designed to accommodate a steering axle 130, one end of which is joined to the center part of the steering bar 132, 134 and the other end of which is connected to a steering wheel 128 of the vehicle. See Figures 5-7. The mechanism is attached to the vehicle by means of the supports 156, 158 and with the wheels 138 being attached at the end. See Figure 7. Also, the drive bar 144 is a crankshaft bar with pedals 188 that drive the bar via arms 150 and 152. See Figures 5-7 and column 5, lines 8-14.

Kobluk does not disclose that the part in the center of the steering bar has a U-shape or that the end of the steering axle joined to the center part has an L shape. However, Middler teaches the desirability of shaping the center part of a steering bar 16 with a U-shape at opening 18 and the steering axle 19 end with a L shape. See Figures 1 and 3; column 2, lines 43-46; and column 3, lines 1-11. From the teachings of Middler, shaping the center part of the steering bar of Kobluk in a U shape and the end of the steering axle of Kobluk with an L shape would have been obvious to one of ordinary skill in the art at the time the invention was made. This would provide a configuration that effectively transmits torque from the steering axle to the steering bar to cause the lateral movement of the steering bar.

Allowable Subject Matter

Claim 5 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims. The prior art does not the claimed keyways in combination with the further limitations of claim 1.

Response to Arguments

Applicant's arguments filed December 28, 2006 have been fully considered but they are not persuasive.

In regard to Middler, Applicant asserts that universal joint of Middler does not have the clasp and cross link arrangement claimed, but has a yoke and diaphragm arrangement. The examiner agrees. However, the desirability of utilizing a clasp and cross link arrangement is taught by Kobluk. Also, Applicant asserts that Middler's steering bar does not have a U-shape because opening 18 is not open on one side. However, the depiction of opening 18 in Figures 1 and 3 suggests that the opening is open on one side, and therefore U shaped. Moreover, column 3, lines 1-6, suggest that opening 18 is at least a circle since it must accommodate the circular perimeter of the steering axle 19. A circle comprises two U shaped portions, each being open toward the open center and each being joined together to form the circle. Thus, the center part of Middler's steering bar has a U shape.

The arguments directed toward the combination of references appear to incorrectly rely on the notion that the cited combinations involve bodily incorporating the

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structure disclosed in one reference into the structure of another reference. However, the determinations of obviousness cited above do not suggest bodily incorporation since the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). The combined teachings of the references suggest the modifications discussed in the rejection above. Although some differences exist between the various references, those differences would only be relevant if they undermined the combination. Here, none of the differences in the various structures teach away from or otherwise undermine the cited combinations.

Furthermore, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the prior art relied upon in the rejections above at least suggests the modifications.

In addition, the determinations of obviousness in the rejection above are not hindsight reconstructions of Applicant's invention based upon Applicant's disclosure. One must recognize that any judgment on obviousness is in a sense necessarily a

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reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). Here, the determinations of obviousness are based upon the cited prior art references.

The arguments directed toward Ohya, Kobluk, and the taking of Official Notice relate to the previous terms or rejection and are moot in view of the new terms of rejection presented above.

In regard to Howell et al., Applicant asserts that Howell et al. do not disclose the recited smooth drive bar. However, the drive axle that the gears drive and to which the wheels are mounted is a smooth drive bar. This bar is depicted in the Figures. Also, note that the recitation of "smooth" in claim 3 is a broad term that is subject to the broadest reasonable interpretation within the plain meaning of the term.

Applicant further asserts that one of ordinary skill in the art would not be motivated to modify the foot operated car of Middler with an electric motor since Middler's crankshaft is wavy and Middler's vehicle is relatively small. However, utilizing a straight bar, rather than a wavy bar, when equipping a vehicle such as Middler's with a motor would be appropriate from a design standpoint and would be consistent with the teachings of Howell et al. Thus, Middler's wavy crankshaft does not preclude the combination. Moreover, the assertion regarding the size of Middler's vehicle is

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speculation. Vehicle size is not disclosed by either Middler or Howell et al. in a way that would preclude the modification of a pedal driven vehicle to a motor driven vehicle.

For these reasons, Applicant's arguments are not persuasive and the claims remain rejected, as described above.

Conclusion

This action is **not** final due to the new terms of rejection outlined above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Bottorff whose telephone number is (571) 272-6692. The examiner can normally be reached on Mon.-Fri. 7:30 a.m. - 4:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Ellis can be reached on (571) 272-6914. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Christopher Bottorff